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The Canadian Geographical Society

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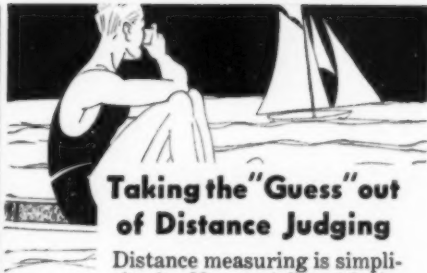


The Society's ambition is to make itself a real force in advancing geographical knowledge, and in disseminating information on the geography, resources, and peoples of Canada. In short, its aim is to make Canada better known to Canadians and to the rest of the world.

As one of its major activities in carrying out its purpose, the Society publishes a monthly magazine, the Canadian Geographical Journal, which is devoted to every phase of geography—historical, physical, and economic—first of Canada, then of the British Empire and of the other parts of the world in which Canada has special interest. It is the intention to publish articles in this magazine that will be popular in character, easily read, well illustrated and educational to the young as well as informative to the adult.

The Canadian Geographical Journal will be sent to each member of the Society in good standing. Membership in the Society is open to anyone interested in geographical matters. The annual fee for membership is three dollars in Canada.

The Society has no political or other sectional associations, and is responsible only to its members. All money received is used in producing the Canadian Geographical Journal and in carrying on such other activities for the advancement of geographical knowledge as the funds of the Society may permit.



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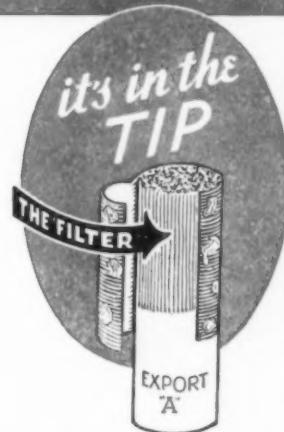
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CANADIAN GEOGRAPHICAL JOURNAL

Editor

Gordon M. Dallyn

172 WELLINGTON STREET, OTTAWA

This magazine is dedicated to the interpretation, in authentic and popular form, with extensive illustration, of geography in its widest sense, first of Canada, then of the rest of the British Commonwealth, and other parts of the world in which Canada has special interest.

Contents

JUNE, 1937

VOLUME XIV, No. 6

COVER SUBJECT:—*Typical home construction in Old Quebec, which derived its unique and picturesque character from Normandy. Thence came many of the early colonists, who introduced the stone traditions of their own land to Lower Canada, protection being provided from the extremes of heat and cold by thick walls, frequently smothered in mortar. Simplicity and modesty animated the builders of these old homes, many examples of which survive throughout the Province to tell their story of the Past.*

	PAGE
LURE OF THE SEA PROVINCES by LLOYD ROBERTS	307
CANADA'S MOUNTAIN PLAYGROUNDS by ROBERT J. C. STEAD . . .	319
FLYING CLUB TRAINING IN CANADA by GEORGE M. ROSS	335
DYNAMITE by G. C. D. STANLEY	341
OSHIMA RETAINS NATURAL CHARMS by CAMELLIA JAPONICA	347
ARCTIC VALEDICTORY by REV. H. R. ROKEBY-THOMAS	350
THE CANADIAN EXILES 1837-1937 by B. E. KRUSE	353
EDITOR'S NOTE BOOK	III
AMONGST THE NEW BOOKS	III

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The British standard of spelling is adopted substantially as used by the Dominion Government and taught in most Canadian schools, the precise authority being the Oxford Dictionary as edited in 1929.

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LEFT:

Eight hundred miles from the sea, the 42,000-ton Empress of Britain slowly passes the Citadel of Quebec to her berth in Wolfe's Cove, shrouded in a light morning mist that conjures forth faint memories of this historic site.



The Memorial Church and Statue of Evangeline
at Grand Pré.

Photo by Bureau of Information Halifax.

LURE OF THE SEA PROVINCES

by LLOYD ROBERTS

SPEAKING of the Maritimes — and where is the Bluenose who wont? — you "Canadians" may wonder and even smile a bit wearily at the faith that is in us, not understanding. "Are not Abana and Pharpar, rivers of Damascus, better than all the waters of Israel?" you may ask in the words of Naaman. "May I not wash in them and be clean?"

How can we explain the lure of the Sea-Provinces! We know only that it is there and that it endures the slow attrition of time and vicissitude, stealing out to the Earth's four corners to call us back again, To the red and yellow of the Autumn salt-grass,
The grey flats, and the yellow-grey full tide,
The lonely stacks, the grave expanse of marshes —

O Land wherein my memories abide,
I have come back that you may make me tranquil,

Resting a little at your heart of peace . . .

Charles G. D. Roberts.

Yes, prose is inadequate. Where else, we boast, can you find such red roads and turgid tidal rivers; hear bobolinks tinkling their silver bells over diked meadows waist-deep in clover and timothy; see sea-fogs rolling up the valleys; eat such shellfish and mackerel and "Digby chicken" fresh from the sea, or such buckwheat pancakes smothered in Barbados molasses (perhaps washed down with Barbados rum); taste such strawberry jam and seed-cake, or purple dulse, crisp and salty from the Fundy rocks?

I too, after long exile, returned at last to the Land of My Fathers and found it good. Thirty years allow ample latitude for disillusionment — thirty years of day dreams and night dreams so suffused with rose mist that reality and unreality were indistinguishable and one wondered if it were not all a fabulous country of childhood imagining.

Mounted prosaically on a motorcar I rolled back in a few days the long accumulation of time and distance and found myself on a warm August afternoon feasting my eyes on the flashing blue reaches of

the upper St. John. No disillusionment here! The same bickering rapids and swift-gliding "thoroughfares," the same "patch of sun-warmed shingle where a man may bask and dream to the click of shod canoe-poles round the bend," and down along its shores I found the same tropic tangle of milkweed and blue vetch and wild cucumber vine alive with bees and birds and those damp sweet scents that perfumeries can never capture. I dipped three times in this cleaner cooler Jordan and went on feeling considerably cleansed of both body and soul — on through Aroostook and Woodstock and Pokiok, past islands and sand-bars misted in the smoke of unforgotten campfires, down to Fredericton, founded by Loyalists and still drowsing beneath its elms of clouted Malecites and kilted Highlanders, when dueling and gout were the insignias of respectability and Winslows and Allens and Blisses represented the law and the profits.

Thirty years have succeeded only in converting livery stables into service stations and lifting the sons of Martha into the high seats. There are still logs in the river and the smell of sawdust in the air. Along the banks the time-hollowed trunks of willows still house little bearded gnomes and slim green hamadryads. Is it any wonder that Fredericton's poet-exiles in far countries are forever reaching back, "thinking of these things"!

.. One afternoon of quiet summer weather!
O, woodlands and meadow-lands along the blue St. John,

My birch finds a path — though your rafts lie close together —

Then O! what starry miles before the gray o' the dawn! . . .

I have met the new day, among the misty islands,

Come with whine of saw-mills and whirr of hidden wings,

Gleam of dewy cobwebs, smell of grassy highlands —

Ah! the blood grows young again thinking of these things.

Francis Sherman.

This is the birthplace of poets but alas! no longer the residence. If their birthplace gave small honour and less credit while in residence it now makes amends with brass tablets and marble shafts. The Carman house has not changed since Little Boy Bliss stared from its windows, and the big brick rectory, once a "nest of singing birds," still harbours the ghosts of song and laughter and tears that, transmuted into poetry, outlive the spinning years.

How difficult to see this land through the eyes of today! The mouth of the Nashwaak opposite, roofed by the covered bridge, is the green mouth of a cave luring the canoes to secret and romantic bowers. The "Flats" below the town is the old "swimming hole" of Shermans and Mullins and Rainsfords, not to mention Jones and Smiths and Boones (with what exciting clashes!). The Lower Mills and their huge sawdust piles still mark the borderland of terra incognita inhabited by strange people who raided up from Oromocto and Portobello and guarded the North-West Passage leading into Grand Lake — the inland sea whose fastnesses no one had explored. In those brave days every river was an adventure leading not to gold but to wild white waters and portage trails and blueberry barrens and nameless perils that lay in ambush by day and crept about the tent at night. Pegasus then was a birch-bark canoe, not a motorcar, and though now the slim steed is forsaken she is not forgotten:

I sleep all day and count my dreams;
Live my adventures over again;
See vanished campfires and lost men
At nightfall by the willowed streams;
And grey geese homing from far south,
And jammed logs at the river's mouth,
And catkinned alders near and far
Starting the banks with fairy gleams,
And driftwood swinging at the bar.
I sleep all day and count my dreams.

Theodore Goodridge Roberts.

No, the world has not changed, only we have changed — racing by in an hour the thousand and one adventures of childhood. One has only to shut off the gas and alight to know that this is so — to breathe the same odors, hear the same barnyard sounds, see the same farmer pitching intervale hay in the meadows along the river.

RIGHT:

Top:—South Ingonish Harbour, showing Cabot Trail, Cape Breton Island, Nova Scotia. Eastern entrance to Cape Breton Highland National Park. Center:—A catch of Pollock from a Herring trap. Photo by Canadian Motion Picture Bureau. Below:—Nashwaak Valley, New Brunswick.

At last steeped rock-planted St. John, the Loyalist City, bulks black between the inland green and the outsea blue. Its narrow up-and-down streets are subtly redolent of fish and molasses and damp with sea-wind and sea-fog. Its wharves spindle up from the falling yellow tides, fishing boats and tramps clinging like barnacles to their weedy piles. The day of barks and brigantines may be past but romance still persists despite modern liners and more modern tourists:

Smile, you inland hills and rivers!
Flush, you mountains in the dawn!
But my roving heart is seaward
With the ships of grey St. John...
Past the lighthouse, past the nunbuoy,
Past the crimson rising sun,
There are dreams go down the harbour
With the tall ships of St. John.
In the morning I am with them
As they clear the island bar—
Fade, 'til speck by speck the midday
Has forgotten where they are.
But I sight a vaster sea-line,
Wider lee-way, longer run,
Whose discoverers return not
With the ships of grey St. John.

Bliss Carman

Wander down Market Slip or Middle Street some dark night when the wind is keening in from the sea, and you'll probably hear the voices of disembarking Loyalists, pass ghosts of tarry sailors and soldiers of fortune and the swash-buckling Charnisay and the brave pathetic figure of Lady La Tour...

Romance goes overboard however if you cross the Bay of Fundy on a stormy day. What memories to forget of small paddle-wheel tubs and miserable passengers bouncing their way across to Digby Gut. Once within the Gut all is forgiven. The glory of Annapolis Royal is so mellowed by sunlight and pastoral peace that one can scarcely conjure up memories of powder-grimed soldiers and Boston privateers. Annapolis Valley in haying time or apple time is a benediction. Comes Wolfville with the long ridge of Blomidon looming over the dyke-lands of ancient Acadia, the little rivers that brim their banks and then race out to sea again between shining walls of red mud, the uplands bristling with spruce where summer long the cicadas shrill their thin string and



raucous crows make rendezvous in the sun's red setting. Here one re-discovers the Happy Valley of the Gaspereau — of which none more deserves the title — its white cottages sunk in the peace that passes all understanding; and Grand Pré brings a catch to the throat, being as poignantly satisfying and yet heart-breakingly elusive as homecomers always find it, whether the tide be high or low.

The sun goes down, and over all
These barren reaches by the tide
Such unelusive glories fall,
I almost dream they yet will bide,
Until the coming of the tide.
And yet I know that not for us,
By any ecstasy of dream,
He lingers to keep luminous
A little while the grievous stream,
Which frets, un comforted of dream —
A grievous stream, that to and fro,
All through the fields of Acadie
Goes wandering, as if to know
Why one beloved face should be
So long from home and Acadie.
Was it a year or lives ago
We took the grasses in our hands,
And caught the summer flying low
Over the waving meadow lands,
And held it there between our hands?

* * *

So all desire and all regret,
And fear and memory were naught;
One to remember or forget
The keen delight our hands had caught;
Morrow and yesterday were naught.
The night has fallen, and the tide...
Now and again comes drifting home,
Across these aching barrens wide,
A sigh like driven wind or foam:
In grief the flood is bursting home.

Bliss Carman.

There is a lot of grief about and around Grand Pré, in old homes, old churches, old cemeteries, even in the old orchards in blossom time. It has been a long time since sleeping peasants awoke with the scream of Micmacs in their ears, since the King's Proclamation drove them weeping from the Chosen Land; Beausejour is only a grassy mound, descendants of friend and foe have long been merged in sweet contentment, and yet the shadows linger in the sunlight, and they would not have it otherwise.

"Ye who believe in affection that hopes and endures and is patient,
Ye who believe in the beauty and strength of women's devotion,
List to the mournful tradition still sung by the pines of the forest;
List to a Tale of Love in Acadie, home of the happy."

It is only a little piece between Wolfville and Windsor at the head of Minas Basin, but no other portion of the Maritimes has been so lived over and loved over by poets. To old King's College of staid but glorious memory belongs the credit of rallying Roberts, Carman, Norwood and numerous other singers to these inland seas and tidal rivers. And "one would say that from the rivers and headlands of the Sea-Provinces of Canada the wistful old gods had not quite gone away," writes Basil King — "King of Kings," as he was called. Most have returned to Olympus, whence there is no returning, but ere they went — Bliss and Bob and Basil — their laughter rang so clearly from upland and meadow that now on warm days one can catch the faint echoes stealing back from the blue walls of Blomidon.

Regretfully one turns away from this tender land. And yet there are roads that lure southwards to St. Margaret's Bay (above which Bob lies sleeping) and all the magic isles and coves and inlets that dot and jag the outer coast from Canso to Sable:

The Cove lies partly landlocked from the sea.

Its arms enclose a huddle of white homes Red-roofed above its shacks and wharves.

To me,
Who have grown weary of old temple domes
And minister spires, of castles, gates and walls,

Earth has no beauty like those roofs of red
Against the dark green spruce when
twilight falls

Upon the Cove.

Robert Norwood.

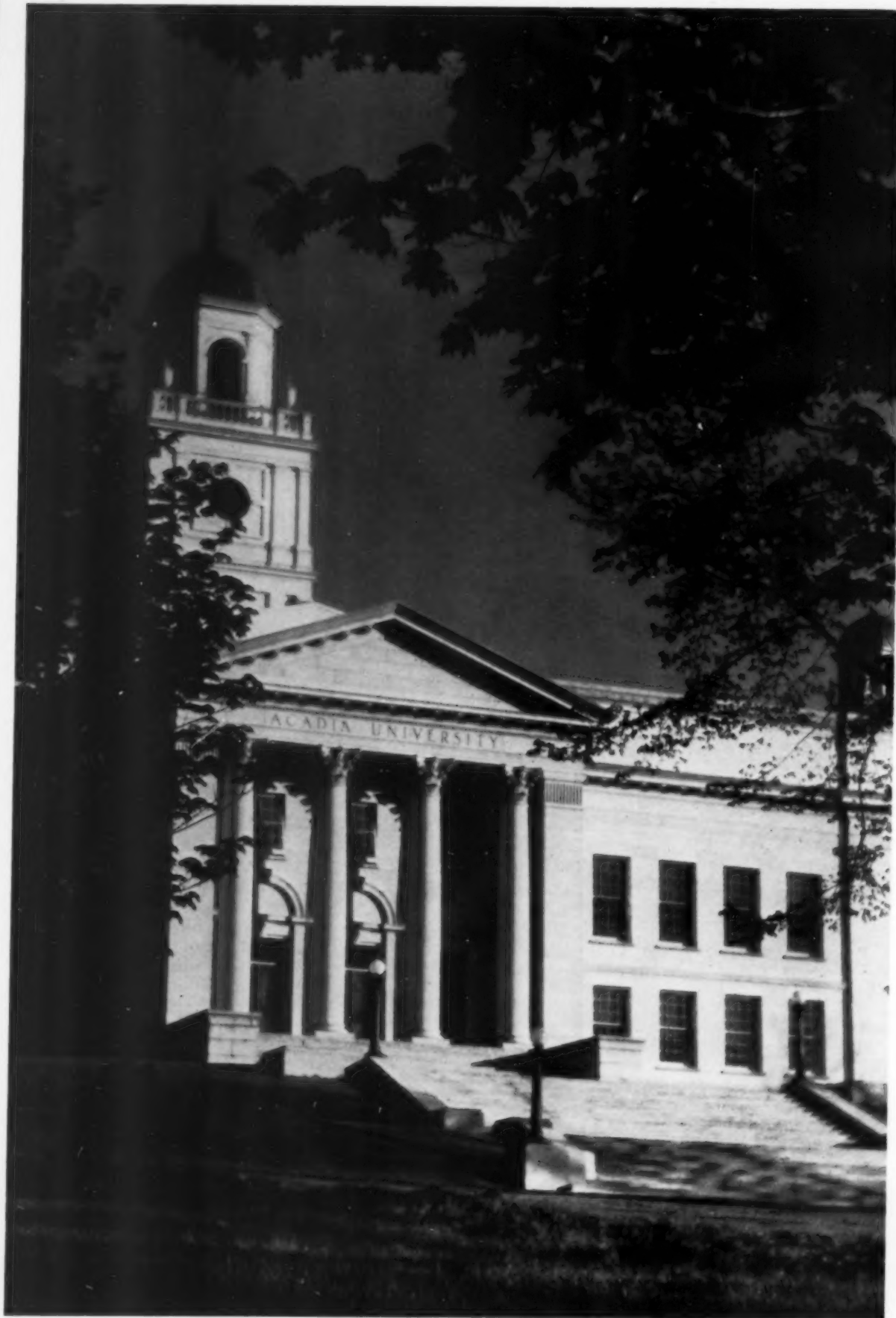
And mid-way along this sea-torn coast lies "Safe Harbour" (Halifax), the stamping ground of most of the governors and admirals and generals who for two hundred years had been actively concerned in the holding of this brave new world from Micmac and Frenchman and New Englander. Their deeds live after them not only in the stones and streets and citadels, in rusting guns and half-legendary romances

Legislative Building, Fredericton,
New Brunswick.

Photo by Canadian National Rys.

An elm shaded street typical of
Fredericton.





The Cornwallis Valley is noted for its educational facilities. The main building of Acadia University, Wolville.

but in an atmosphere wherein such scribes and poets as Haliburton, Basil King, Marshall Saunders and Bob Norwood could mellow and grow great.

But resisting such well-beaten highways you take the red dirt road that twists east and north around Cobequid Bay, past the Five Islands of Gluskap, through the deep wooded Wentworth Valley until, crossing the tawny Missaguash it brings you back to New Brunswick and the little sleepy towns of Sackville and Dorchester.

Here, nearly three-quarters of a century ago, came from the other direction a great-hearted minister and the small lad who was to give unknown rivers and lonely marshes a touch of that immortal Beauty that never was on land or sea:

... lie broad the Westmorland marshes,—
Miles on miles they extend, level, and
grassy, and dim,
Clear from the long red sweep of flats to the
sky in the distance,
Save for the outlying heights, green-
rampired Cumberland Point;
Miles on miles outrolled, and the river-
channels divide them—
Miles on miles of green, barred by the
hurtling gusts.

Charles G. D. Roberts

From the motor road it is only a wide silent marsh without particular allurements. But leave the shore and wade out through the green swinging billows of scented grass humming with bees and frothed with flowers and one knows the utter loveliness of Tantramar:

"Cool on my lips is the daisy foam and
the spray of the Queen Ann's Lace.
With half-closed eyes and out-stretched
arms I swim through the scented heat.
Oh never were broad sea-winds so warm
nor southern seas so sweet."

All the way on to Moncton the salty winds rise damp from the valley of the Petitcodiac to lose their tang in the languorous breath of sweet hay, goldenrod and tansy. Then suddenly the atmosphere changes. One has left the land of Gluskap and the Five Isles, of old rose and lavender,

of French gallantry and British courage, even of weedy wharves and smugglers' rum. Now there are streetcars and factories, with commercial lumber and export potatoes beyond. Pan has left no footprints along the fringes of buckwheat fields. The Petitcodiac bore has been invited to perform for American tourists and does it very badly. There is no place for poetry and the shades of poets. One eats a fish dinner in a Chinese restaurant and hurries on toward the luscious valley of Sussex, the headwaters of the Kennebecasis and the wide blue waters of Our Mother St. John.

"Time falls—the wind falls—the grey geese
draw on.

There is silence and peace on our Mother
St. John."

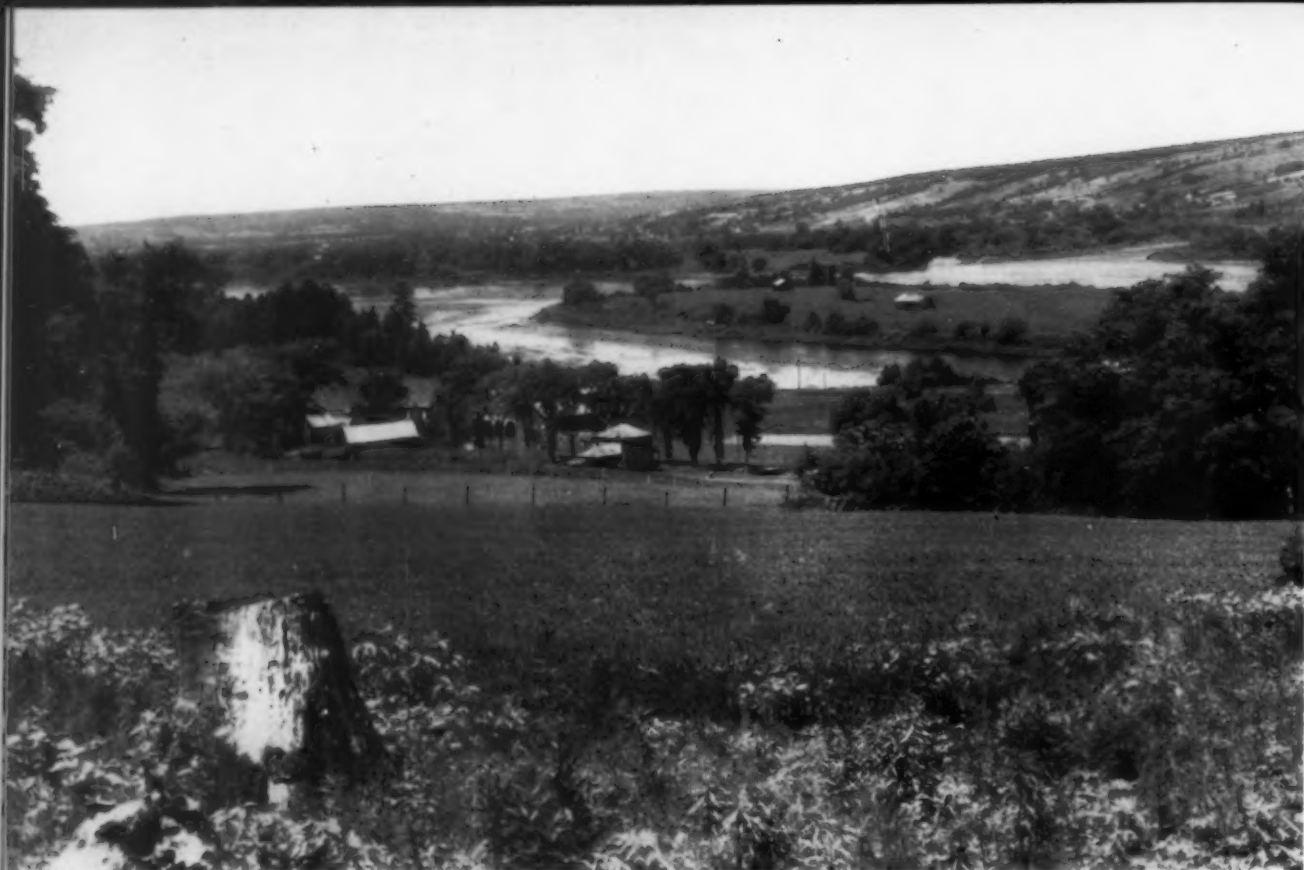
The magic circle has been completed. Therein lies the heart of the Maritimes—the heart beloved by all who have listened to its quiet beat. In Ontario and the Prairie Provinces, in far-off British Columbia, through all the States from Massachusetts to California and in the uttermost parts of the sea they lift their eyes from plough and spindle, from pen and pruning-hook, at the scream of a gull or the smell of fog—remembering! So many of us are inlanders now! But we do not forget.

I am no deep sea rover
Where the billows curl and cream,
But I plough the lakes of clover
Behind a clanking team;
With a tall pine for bearing
I sail the scented foam,
Til twilight rings the pasture bells
And lights the port of home . . .

My adventuring is over.
I am stranded here at ease,
My decks awash with clover,
My halyards manned with bees.
And yet the sea-gulls find me
With clamor of the sea,
And still the sea-dreams gather
To haunt the heart of me.

Lloyd Roberts





Saint John River Valley near Fredericton, New Brunswick.

Photo by National Parks of Canada

Saint John River, New Brunswick.

Photo by Canadian National Railways.





Nashwaak River, New Brunswick.

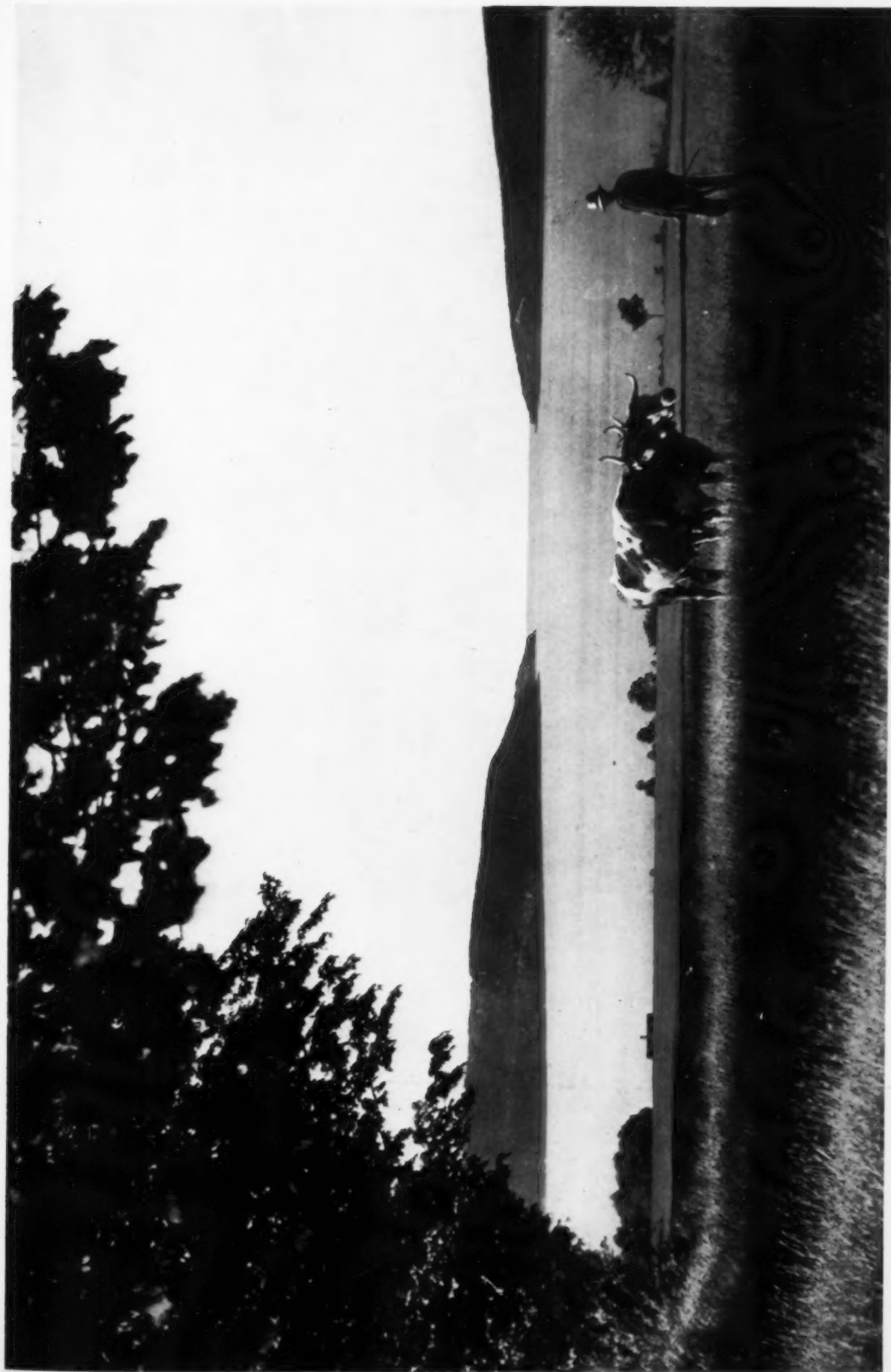
The Cornwallis Valley—is one of the principal apple areas of Canada and produces more than 1,000,000 barrels annually.
Photo by Canadian Pacific Railway.





Apple Blossom time, Nova Scotia.

Photo by Bureau of Information, Halifax.



Historic Digby Gut, entrance to the Annapolis Basin through which sailed Champlain and de Monts in 1604.



CANADA'S MOUNTAIN PLAYGROUNDS

by ROBERT J. C. STEAD

FIFTY years ago Canadian statesmen of the time instituted the National Park idea in the Dominion by reserving a little mountain wilderness of ten square miles in the Rocky Mountains surrounding the hot springs at Banff, Alberta. The movement then begun has resulted in the preservation for the people of Canada of a natural heritage of beauty in the form of majestic mountains, peaceful valleys, crystalline lakes and primeval forests. From a small beginning Canada's system of National Parks has grown to a vast outdoor kingdom, consisting of twenty individual parks with a combined area of 12,527 square miles.

In the parks are preserved the scenery, flora and fauna representative of that part of Canada in which they are situated. Although originally established to preserve the landscape in its primitive state and conserve the wild life of the region, National Parks are now also serving as national recreational areas, where beautiful surroundings are enjoyed each year by thousands of Canadians and their guests from other lands.

In Canada the term "national park" covers the scenic and recreational parks in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia and Prince Edward Island; the wild animal parks established in Alberta for the protection of native wild life, and the national historic parks in Nova Scotia and New Brunswick.

Of the first group, the parks area in the Rocky and Selkirk Mountains of Western Canada is the largest and best known. In these two great mountain ranges are seven national parks, with a total area of 8,720 square miles. "A Sea of Mountains" they have been described. Within their boundaries are regions of alpine grandeur unsurpassed in the world. Immense peaks lift their snow crowned heads high above the clouds, great glaciers move slowly down from ice-bound sources, and deep canyons hide their floors in awesome depths. Between the ranges are green valleys set with sparkling lakes and musical with the sound of tumbling waters. Well has the Canadian mountainland been described as "twenty Switzerland in one."

Banff, the oldest of Canada's National Parks, located on the eastern slope of the

Rockies in Alberta, has an area of 2,585 square miles and contains the world-famous resorts, Banff and Lake Louise. Nestling in the picturesque valley of the Bow River, the little town of Banff is the administrative centre of the Park, and the hub for a system of motor roads and trails which radiate into the primitive wilderness. Lake Louise, forty miles west of Banff, is superb among the beautiful lakes of the Rockies. Surrounded by massive mountains on three sides, it sparkles in ever-changing hues, mirroring the reflection of forest, peak and sky.

To the southeast, in the lonely Valley of the Ten Peaks, is Moraine Lake, walled in by the curving arc of ten majestic mountains, while nearby is Paradise Valley, its green meadows brilliant with flowers and musical with waters. Mount Assiniboine, loftiest peak in the park, stands astride the continental divide. It rises to a height of 11,870 feet in the form of a great glacier-hung pyramid and has been aptly termed the "Matterhorn of the Rockies" from its configuration similar to the famous Swiss peak.

North of Banff Park is Jasper Park, largest of Canada's national playgrounds. It includes an area of 4,200 square miles—a magnificent region of mountains, icefields, canyons and exquisitely coloured lakes. Its central geographic feature is the wide valley of the Athabaska River which forms an ideal route of travel for both railway and highway. Rich in historical associations, the valleys of Jasper Park were travelled more than a hundred years ago by the fur-traders, explorers and missionaries who made their way along the "Athabaska Trail" from eastern headquarters to the Columbia River on their way to the Pacific coast. Notable points of interest in Jasper Park are Maligne Canyon, the Miette hot springs—among the hottest on the North American continent—Mount Edith Cavell, the Tonquin Valley and Maligne Lake. The largest of all glacier-fed bodies of water in the Canadian Rockies, Maligne is also breathtaking in beauty.

High on the shoulders of the peaks forming part of the great continental divide which separates Alberta from British Columbia is the great Columbia Icefield.

LEFT: Mount Lefroy and Lefroy Glacier near Lake Louise, Banff National Park, Alberta.

Photographs by National Parks of Canada

This vast sea of snow and ice, estimated at 110 square miles and the accumulation of centuries is the birthplace of mighty rivers flowing finally into three oceans—the Pacific, the Arctic, and the Atlantic, through Hudson Bay.

Waterton Lakes National Park in southwestern Alberta is one of the smallest but one of the most beautiful of the national parks in the Rockies. It contains 220 square miles and adjoins the United States Glacier National Park, with which it forms the Waterton-Glacier international Peace Park. While its mountains lack the great height of those to the north, their colouring is extraordinary. Upper Waterton Lake, the central feature of the park, stretches across the invisible International boundary like a great arm, to unite the two park areas in one vast playground and sanctuary.

Crossing the Great Divide of the Rockies into British Columbia, the visitor enters Yoho National Park, 507 square miles in extent and differing in character from the parks to the east. Noticeable is the greater richness of the vegetation, and, for the most part, the narrower confines of the valleys. Yoho Valley is a wonder spot of the Rockies. Indeed, "Yoho" is an Indian exclamation of wonder and delight, and the beauty of the scenery fully justifies the name. Into this narrow valley, fourteen miles long and more than a mile deep, down sheer rocky sides pour dozens of waterfalls. Takakkaw, most beautiful of these cascades, falls a total distance of 1,500 feet to reach the valley floor.

Yoho Park also contains lakes Emerald and O'Hara, as lovely as any in the mountains. It is said that one may count twenty shades of green in Emerald Lake. Lake O'Hara has been compared by noted artists to Lake Louise, both for setting and for colour.

To the south of Yoho Park in British Columbia lies Kootenay National Park, which was established to preserve the landscape along the Vermilion-Sinclair section of the Banff-Windermere highway, the first motor road built across the central Rockies. Kootenay Park contains an area of 587 square miles, and its outstanding scenic features include remarkable canyons and beautiful valleys, as well as the famed radium hot springs, at which a large swimming pool and bath-house have been constructed. Sinclair Canyon, just inside the western boundary of the park, is a great notch in the wall of the Rockies, and forms a natural gateway to an alpine wonderland.

Beyond the Rockies to westward are the Selkirk Mountains, in which are Glacier and Mount Revelstoke Parks. It has been said that "no snows are so white as the Selkirk snows, no forests so darkly, beautifully green." While the average height of the peaks is less than that of the Rockies, the richness of the flora contrasted with the abundance of ice and snow forms a combination that is particularly beautiful. Glacier National Park has an area of 521 square miles and may be reached only by railway, since no motor roads have yet penetrated its rugged fastnesses.

The last link westward in Canada's chain of national playgrounds is Mount Revelstoke Park, an area of 100 square miles. Occupying a wide rolling plateau situated almost at timberline, the park contains several small lakes and is approached by a scenic motor road which winds up the side of Mount Revelstoke, providing along the way magnificent views of the Illecillewaet and Columbia River valleys.

Fine motor highways, threading their way through the valleys and over the passes by easy gradients, and crossing the turbulent streams on modern bridges, afford access to the principal centres of interest. More than 500 miles of motor highways and secondary roads have been constructed which either traverse the mountain parks or link them with the main avenues of travel. Now under construction is a new motor highway which, when completed, will link Banff and Jasper National Parks and provide a travel route through a magnificent region bordered by lofty peaks and gleaming glaciers and ice-fields. The Canadian Pacific and Canadian National railway systems also afford luxurious transportation to the mountain parks.

One of the greatest attractions of national parks is the variety of wild life found within their boundaries. The rigid protection received by the creatures of the wild appears to have freed them from fear of man; and deer, elk and bear now come within a few yards of human habitation. It is quite a common sight while driving along the park highways to observe a group of bighorn sheep cropping the grass by the roadside, while along the trails deer, moose and elk may frequently be seen. The parks are serving as breeding places for many species of big game which spread beyond the park boundaries and re-stock surrounding districts.

RIGHT: Climbing the Needles at Lake Louise, Banff National Park, Alberta.





The Banff Windermere Highway winds through the picturesque Valley of the Vermilion River—
Kootenay National Park, British Columbia.

Photos of Royal Canadian Air Force.

Mount Assiniboine. "The Matterhorn of the Rockies" is one of the highest peaks in Banff National Park, Alberta.



Recreational opportunities in the parks are many and varied. Riding, hiking, motoring, mountain-climbing, boating and swimming may be enjoyed under ideal conditions. Opportunities for golf have been provided in many of the parks by the construction of sporting courses, and tennis courts are open to the public at several places. Many of the mountain lakes and streams have been stocked with different species of game fish, and fine sport awaits the angler, particularly in Banff, Jasper and Waterton Lakes parks.

An event of interest to lovers of the outdoors is the camp of the Alpine Club of Canada held annually in the mountain parks. The Trail Riders of the Canadian Rockies and the Sky Line Trail Hikers also sponsor outings which are becoming increasingly popular. The "Indian Days" celebration at Banff provides a unique spectacle for visitors, and international golf tournaments held at Banff and Jasper attract outstanding competitors from near and far. Outdoor sports are not confined to summer alone, for in winter the snow-clad slopes of the Rockies provide ski-ing rivalled only at the best European resorts. The annual winter carnival at Banff attracts skiers, skaters, curlers and other winter sports devotees from many points in Canada and the United States.

In Banff, Jasper and Waterton Lakes parks picturesque towns have grown up at the administrative centres, where excellent hotel and bungalow camp accommodation is available. Chalets or bungalow camps are also maintained at Lake Louise, Emerald Lake, Lake O'Hara, Radium Hot Springs, and other well known beauty spots. Equipped motor campgrounds, situated in the park townsites and along the park highways, also offer excellent facilities to the visiting motorist.

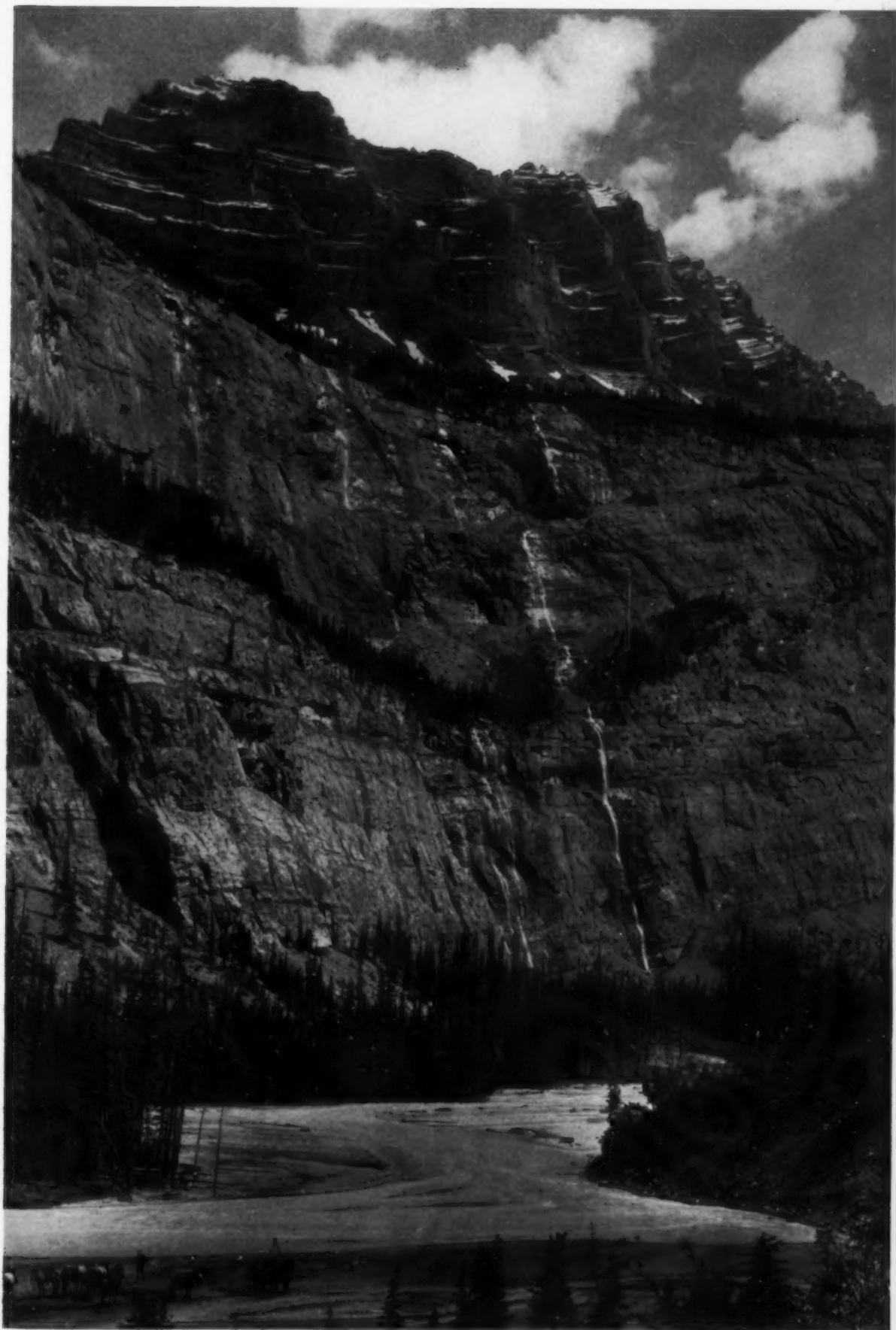
It has been well said that "beauty, spiced by wonder, is the greatest lure to travel," and beauty is the outstanding appeal of Canada's mountain parks. No one can spend even a few hours among their natural wonders without gaining a new conception of the greatness of the Dominion. Since they were first opened to the public, the beauty spots which lie hidden away among the great peaks and ranges of Canada's mountain playgrounds have been visited by thousands of travellers from all corners of the earth. They have climbed the ice-clad walls, camped beside crystal lakes, and in cool and fragrant forests have communed with nature in her deepest moods. The mountains yield their riches only to those who come and live among them; from their beauty and endurance comes strength, health and restoration of spirit against the stress and cares of a restless world.



Clouds hanging below Pyramid Mountain. Lac Beauvert and Jasper Park golf course in foreground.



Riders on trail bridge at Lower Sunwapta River Falls, Jasper National Park, Alberta.



The sheer walls of Mount Coleman rise high above the North Saskatchewan River along the route of the new Banff-Jasper highway, now under construction. Banff National Park, Alberta.



Ski-ing near Lake Louise, Banff National Park, Alberta.
Evening on Lake O'Hara, Yoho National Park, British Columbia.





Crowfoot Glacier, Bow lake, Banff National Park, Alberta.

The Swiss Peaks and glacier. Climbers descending from Mount Tupper, Glacier National Park, British Columbia.





Like a toy village, the townsite of Waterton Park lies at the foot of Mount Crandell, Waterton Lakes National Park, Alberta.



Through Sinclair Canyon, a giant notch in the wall of the Rockies, may be seen the Selkirk mountains in the distance. Kootenay National Park, British Columbia.



Mount Ishbel, named after Ishbel MacDonald. Part of the Sawback Range which overlooks the Bow River Valley, Banff National Park, Alberta.



Maligne Lake from the Narrows. Maligne is one of the largest and most beautiful glacial-fed bodies of water in the Canadian Rockies. Jasper National Park, Alberta.



Looking south down Upper Waterton Lake to Mount Cleveland across the International Boundary. Waterton Lakes National Park, Alberta.



Hawk Range from the Banff-Windermere highway. Kootenay National Park, British Columbia.



FLYING CLUB TRAINING IN CANADA

by GEORGE M. ROSS

DATING back to an order-in-council passed by the federal government in September, 1927, the flying club movement, now comprising twenty-two clubs has spread from Sydney to Vancouver. It continues more actively than ever to carry out the three-fold purpose for which it was inaugurated, viz: to stimulate public interest in flying, to encourage airport development, and to train pilots.

Greatest interest naturally centres in pilot training, and it is this phase to which attention is particularly invited. An effort will be made to explain the methods employed, step by step, or, as officially termed, in sequence.

While it was originally intended that clubs should engage solely in primary training, there has recently been added an interesting new phase known as "instrument" flying, more commonly and somewhat erroneously referred to as "blind" flying.

The first step by the enthusiast contemplating a career in flying is to consult a physician authorized to examine pilots and to determine their fitness or otherwise for flying. No one who has not yet experienced that test can be fully conscious of the infinite complexity of the human frame. Parts of his structure that he never realized existed are placed under the spotlight and examined with amazing thoroughness.

The student's introduction to flying itself is as a rule unexpectedly mild, compared with the practice almost invariably followed by war-time instructors who delighted in taking their victims into the air and in subjecting them to treatment too harsh to be described in ordinary language. To-day, a student is first shown a model aeroplane, and from it the names of the various parts, the use of the controls, etc., are explained to him. This is more effective at the outset than endeavouring to give verbal explanations in the air against the roar of the engine. It is common practice now for instructors to take great pains over a lesson on the

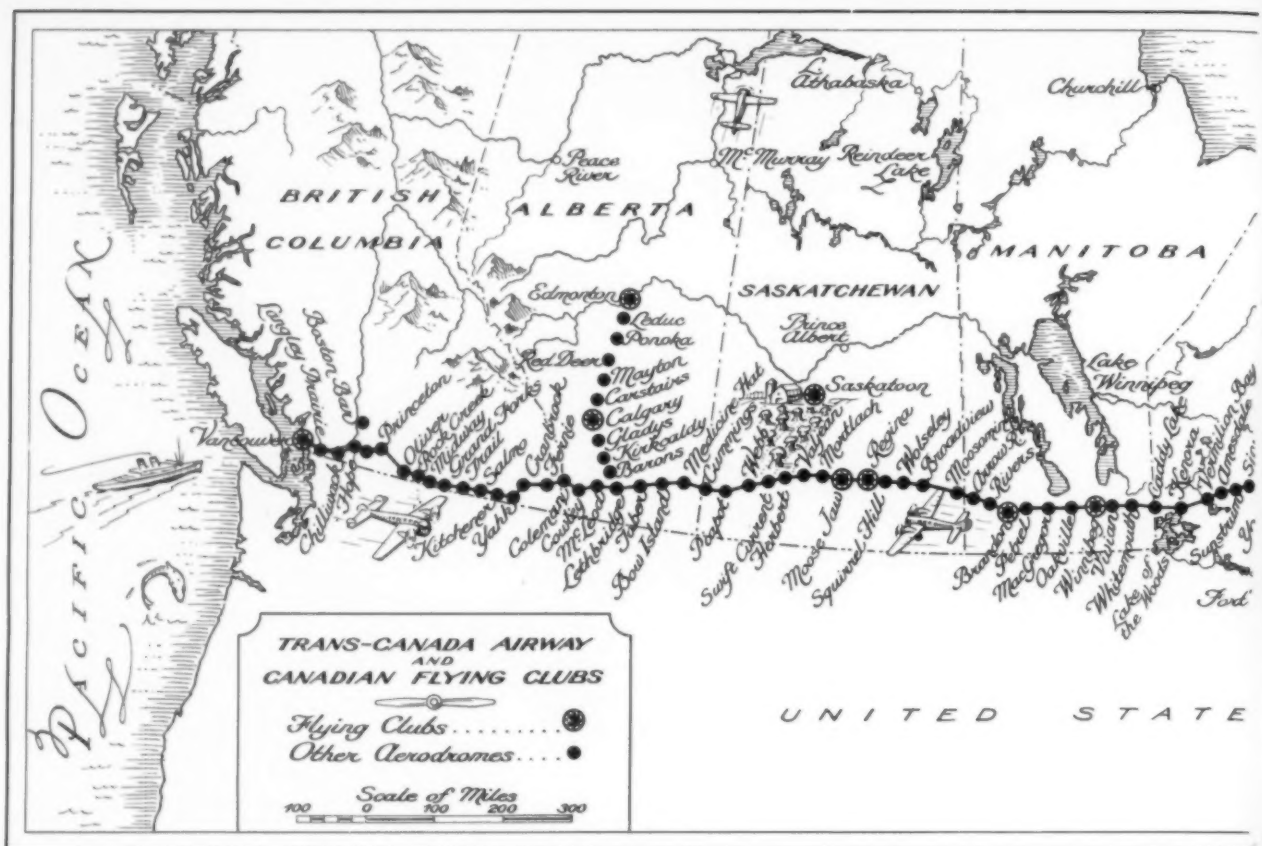
ground before and after every flight. When the student dons helmet and goggles and seats himself in the cockpit, the instructor explains the use of the instruments: the altimeter, registering in thousands of feet; the airspeed indicator, showing miles per hour; and last, and most important of all, the oil pressure gauge.

Communication is maintained between instructor and pupil by means of speaking tubes, and if helmets are properly fitted and earphones in order it is possible to carry on a conversation in an ordinary voice. Many American schools carry out instruction by means of a system of hand signals, but Canadians have found the voice system so satisfactory that signals are little used. Early instruction was usually carried out on a one-way line. This system had its advantages, since it enabled both parties to unburden and express themselves with complete abandon; the instructor neither knowing nor caring what the student might think of his barbed comments, and the pupil secure in the knowledge that his most bitter retort would be borne away harmlessly in the whirl of the slipstream.

The lessons, usually of half-an-hour's duration, follow each other in quick succession, and involve straight and level flying, stalling, climbing and gliding, medium turns, steep turns and gliding turns, take-offs and landings, take-offs and landings, take-offs and landings, and, to relieve the monotony, spins. After eight or ten hours of this, the student discovers to his surprise that the instructor has assumed the role of passenger.

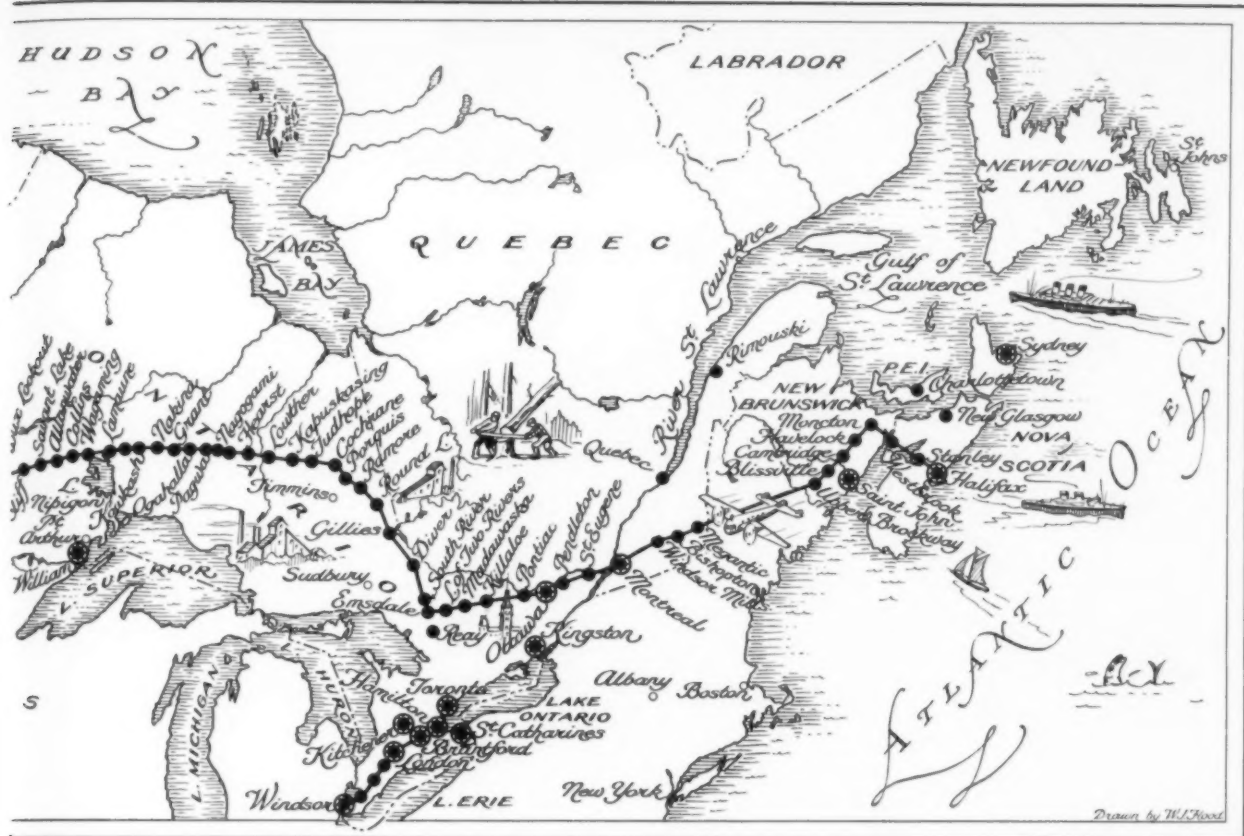
Then, one morning, the instructor stops the plane at the end of the runway and fumbles with something in his cockpit. He emerges with the control column in his hand, tucks the cushion under his arm, fastens the belt and says to the student, "You don't need my extra weight up front. Take it 'round by yourself. I'll stay here just to see you land." This is the student's big moment. He is too busy at the time to think much about it,

LEFT:—"Under the hood," pilots are dependent for the safe navigation of their machine on instruments, as indicated in the cockpit illustrated. The compass, clock and turn-and-bank indicator are located in line in the centre of the instrument panel, with the air speed indicator and altimeter on either side.



With the aid of a model aeroplane, an instructor describes for the benefit of his pupil the various sections of the machine and the manner in which its controls are operated.





Poised for flight, the engine is being warmed-up and the instructor converses with a student flier by means of speaking tubes and ear-phones, answering questions and imparting advice.





LEFT:—The student pilot receives final instructions concerning the use of instruments before commencing his first instructional flight.

BELOW: — Plotting the quadrilateral course. A transport pilot must be familiar with maps, and capable of making rapid calculations with a high degree of accuracy. Various geometrical instruments, besides a course-and-distance calculator, are required in the preliminary study of the air route.



but the knowledge that he has really flown an aeroplane by himself gives a thrill that is experienced only once in a lifetime. The onlookers are not thrilled, only pleasantly sympathetic, for accidents among first soloists seldom occur.

The pilot must learn to land to a given point. Five or six hours of practice usually bring him to the place where he can stop his plane five times in succession within fifty yards of the district inspectors. That dignitary also watches him do spins and figure-of-eight turns, and decides on his general fitness to fly his own aeroplane and carry such of his friends as care to participate in the joys of flying at his expense. In due course of time the Department of Civil Aviation issues to him a Private Pilot's Licence; the club presents him with gold wings, and that chapter of his flying training is closed.

With 250 hours of solo flying to his credit, the holder of a Commercial Licence may qualify for a pilot's Public Transport Licence, providing he can pass the necessary tests. Chief among these is a certain skill in flying a plane by instruments alone. Most of the Canadian flying clubs have special equipment for providing this training in "blind" flying. A hood is fastened over the cockpit, which can be opened and closed at will by the pilot. Special instruments, including a bank-and-turn indicator, a pitch indicator and a clock, are installed in the dashboard in a group so that the pilot can observe them with the least amount of eye movement.

After being accustomed to casting one's eye over all the earth below, it is somewhat disconcerting to be confined in so small a space where the pilot must forget all about instinctive reactions to the movements of the aeroplane, and attend strictly and implicitly to the advice and warnings of his instruments. In a surprisingly short time, however, he learns to take off under the hood, to climb, glide, fly straight, turn in any direction and even do spins

and recover from them with only his instruments to guide him.

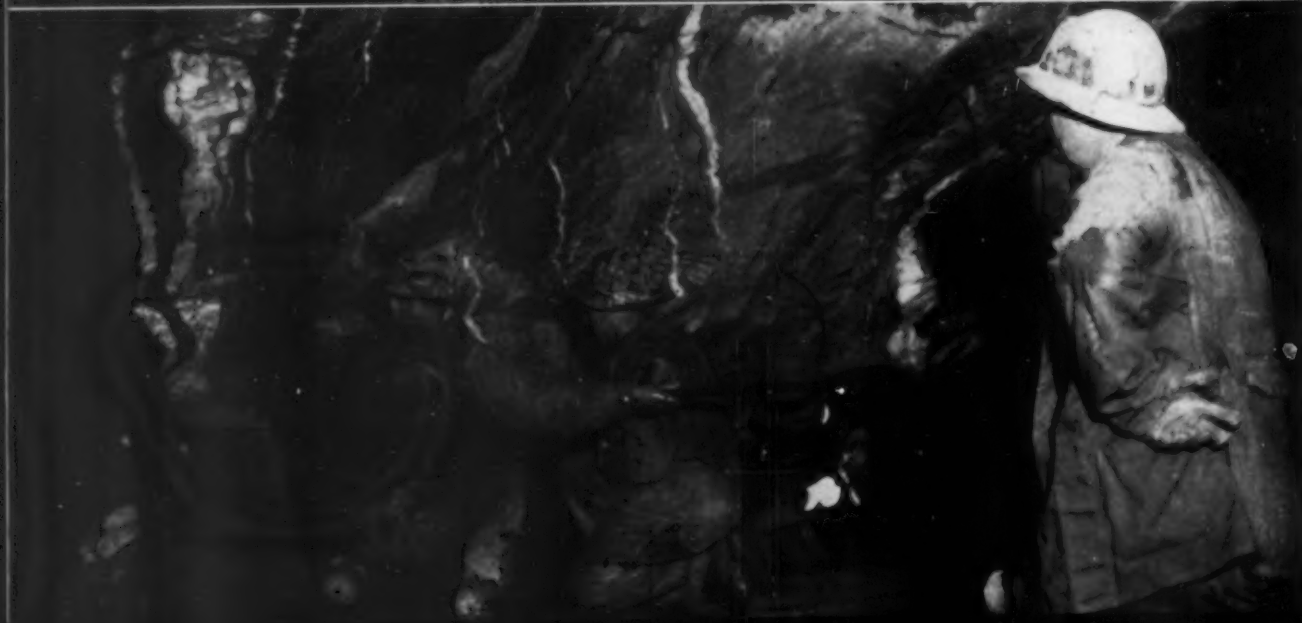
Having learned to keep control of his aircraft under every conceivable condition of flight, the pilot now concentrates on navigating it from place to place. This entails taking into account the drift of the wind and making an allowance for it. The speed and direction of the wind at, say 2,000 feet, is obtained, and the course or courses plotted, using the triangle of velocities method familiar to every high school student. Usually a quadrilateral course, covering a distance of fifty or sixty miles, is required. The compass-bearing of each leg of the course is carefully calculated, together with the time taken to fly it at a given airspeed. With this information, the pilot takes off under the hood, climbs to 2,000 feet, sets his plane on the required compass-bearing, notes the time and starts to fly the four-sided course. In order to close the sides of his square, the pilot must maintain a constant height, airspeed and direction, and must change course with as much precision as a ship at sea.

There is always a safety-pilot, naturally, in the front cockpit. He, too, has a complete set of blind-flying instruments. While flying a quadrilateral course, which is a test of endurance, as well as skill in navigation, the safety-pilot must never speak a word to the pilot under the hood. He takes a map on which the course has been plotted and, with a pencil, shows from minute to minute the actual path of the aeroplane. The flight should end immediately over the starting point, although it is considered highly satisfactory if the plane is within gliding distance of the airport.

Following his instrument training, a course in night flying "rounds out" a pilot's training and enables him to qualify for the Transport Licence, the highest standard so far set in Canada by the Department of Civil Aviation.



The big moment! Ready to take-off on his first solo flight, the student surveys the aerodrome to see that all is clear ahead. Initial solo flights occasion less concern than is generally imagined, as accidents at this stage of training are almost unknown.



DYNAMITE

by G. C. D. STANLEY

COLUMNS of statistics revealing in astronomical figures the output of the mining regions have conveyed to the Canadian something of the magnitude of the industry. He has picked up enough of the jargon of the mining world to know what is meant by outcroppings, shaft-sinking, drifts, cross-cuts, stopes and ore-reserves, although he may never have seen a mine. In fact, mining has become such a part of Canadian life that a foreigner overhearing a luncheon conversation might well take us to be a race of miners.

Familiar as he may be with certain aspects, one might surprise the mining enthusiast by telling him that all of the great mining enterprises would be impossible but for a comparatively obscure and little understood industry — the explosives industry.

Driving north from Parry Sound up to Callander, Ontario, to see the quintuplets or to take a first glimpse at the mining country, thousands of Canadians have looked across the beautiful sheet of island-studded water which is part of Georgian Bay and seen on its north shore thick black smoke rising from the trees. The smoke comes from one of the four Canadian explosives plants which supply the mines with their most essential material — dynamite.

Like all modern explosives plants this one on the north shore of the Sound conveys a curious impression to the visitor. Finding himself inside the barbed-wire fence surrounding the plant site and coming across one of the hundred-odd buildings hidden in the trees, the visitor would think that he had stumbled upon the Canadian equivalent to a secret still in the Kentucky hills. There is an air of isolation, secrecy and silence about the whole place.

Unless he saw the finished sticks of dynamite and the labelled boxes or wandered among the trees in the packing area, he would probably leave still mystified as to what particular industry was buried in such a remote place.

Walking round the various buildings, peeping into their interiors, the visitor would be impressed by the extraordinary

neatness of his surroundings. Trim flower beds, neat plots of grass, the complete absence of even so much as a scrap of rubbish, the gentle hissing of the air-driven machinery, and the lack of hurry and bustle among the workers would convey to him an air of monastic peace and charm.

Tidiness and care so permeate the working hours of the employees of an explosives plant that the same spick and span appearance of their works is carried into their homes and gardens. It even affects the type of clothing they wear and leads the workers to develop such idiosyncrasies as being unable to pass a nail on the sidewalk without picking it up and conveying it to an ash can, or never using matches.

Safety is carried to the nth degree. Obviously the gravest danger that could arise in the plant is a stray spark. Thus every possible precaution is taken to see that no spark could possibly occur. All the floors are made from hard wood, free from the sparking hazard because of the absence of nails in their construction. All metal equipment, roofs, walls and electric parts must be grounded to ensure protection against lightning or the leakage of current.

Most of the machinery used is peculiar to the explosives industry. It is made either of wood or non-sparking metals and is rubber lined and insulated where necessary. If mechanically possible the machinery is worked by compressed air. Even the lights are not brought inside the buildings but illumination is projected through portholes in the walls from lamps shielded by heavy glass.

All the tools used in the mixing of explosives are made from wood, shovels being carved from solid blocks. Each tool is built for a special job and at the end of each day they are checked as carefully as the surgical instruments in an operating theatre. Each has its own position in a special rack where, if in place, it can be seen at a glance.

Areas where explosives material is present are known as clean areas. They are marked off with white lines. No

Left: Above: The man on the right is slitting the sticks of dynamite so that they will expand and fill the holes. His partner is inserting the cap and fuse into the primer cartridge. Centre: Loading a large stope breast.

Below: Gently ramming down a charge in a stope.



LEFT:

Should fire threaten, the bell on the left would clang a warning to the villagers.

The power house of the explosives plant. The shadow is that of the water tower from which the picture was taken.

A magazine where the cases of explosives are stored to await shipment to the mines. Note the barricades.

ABOVE:

Since explosives plants must be built in out of the way places, many of the workers live in specially constructed villages like this. Note the fire apparatus on the right.

The gelatin cartridging machine is housed in this building set well back in the trees.



worker may step over one without first putting on a pair of rubbers when entering and taking them off when leaving. Grit on the soles of shoes might cause a spark. Other precautions to prevent the intrusion of foreign matter include the sifting and screening of all ingredients used in the making of dynamite before mixing, and as a final safeguard all workers wear special clothing in which there are no pockets where a stray match, piece of metal or grit might lurk, a hidden menace to the safety of hundreds of fellow employees.

All buildings are made of light materials. Bricks and stone are barred because they would result in a shower of missiles in the event of an explosion. Even the rails in the clean areas and the trucks and buggies for transporting explosive compounds are made of wood.

Just what the explosives industry means to the mines can be gleaned from a few statistics. In 1860 only 62,000 ounces of silver could be produced in the United States despite the tremendous demand. But in 1870, just after the invention of dynamite by Nobel, 10,000,000 ounces were produced, the great advance being due to the use of explosives. And again in 1860 less than 50,000 tons of vitally needed copper were mined, while in 1936, with the use of explosives, in Canada alone some 250,000 tons were taken from the ground.

Today in the Canadian mines probably over fifty thousand blasts are fired every day. On the average they range in size from a few ounces up to five pounds but occasionally reach huge proportions. The largest blast ever fired in a Canadian mining operation was at Flin Flon mine of the Hudson Bay Mining and Smelting Company, 281,875 pounds of high explosives being detonated instantaneously to break up 583,570 tons of rock and ore.

The figure of fifty thousand blasts a day reveals something of the tremendous producing wealth of the Canadian mining industry when it is remembered that one pound of dynamite yields, on the average, five tons of coal, three and a half tons of stone and three and a quarter tons of ore.

In the expansion of the explosives industry the role of research has played an important part. Ninety-one years ago in Turin an Italian chemist, Ascanio Sobrero, discovered nitroglycerine, but nearly

twenty-one years went by before this oily, explosives liquid was regarded as anything more than a scientific curiosity. Then Alfred Nobel combined nitroglycerine with absorbent materials and called his product dynamite. Between 1860 and 1875 Nobel made truly revolutionary contributions to the industry and by three fundamental advances laid the foundation upon which it still rests. These were the introduction of the blasting cap, the establishment of a high explosives industry in which nitroglycerine was made safe for handling and for transportation, and the invention of gelatinous dynamite.

From Nobel's time to the end of the century the explosives industry was largely occupied in adapting his innovations. Since 1900 research has attacked the problems with increasing vigour.

From a safety viewpoint perhaps the outstanding triumph has been the removal of the hazard of frozen explosives. Dynamite, because of its nitroglycerine content, originally congealed at about 54 degrees above zero, and, therefore, often had to be thawed out before it could be placed in a hole and exploded with efficiency. Many accidents happened to persons whose familiarity with the dynamite had bred an indifference to its power even when it was piled on a hot stove. Today dynamite manufactured in Canada remains unfrozen even at the lowest temperatures encountered anywhere in the Dominion. What this means in a mining operation, such as the production of radium ore at Great Bear Lake where the frost penetrates to a depth of 300 feet, needs no further explanation.

In the past ten years the railroads of Canada and the United States have transported billions of pounds of dynamite, black powder and other explosives without a single mishap of any kind, and last year approximately 400,000,000 pounds were transported by the railroads of North America without accident.

The major part that dynamite plays in the winning of Canada's mineral wealth is at once obvious on a visit to the mining country. It enters into almost every phase of underground work, its various uses multiplying with the growth of the mine.

The operations of two miners boring into the face of a drift will give a good idea of



TOP LEFT:—"Spitting the cut," or lighting the safety fuse in preparation for firing the round.

BOTTOM LEFT:—Placing the primer cartridge. Note the completed round of holes and the powder bag.

ABOVE:—Loading the bottom cut holes in a drift.

these major phases of mining. Let us suppose that the drift is three thousand feet down. There is just room for the two miners to work side by side, and standing up. Each wears a hard helmet to protect his head from pieces of falling rock, a rubber suit and rubber boots to keep out the water dripping from the rocky walls and ceiling to form small puddles on the floor. The beams from the Cyclopean lights, shining from their foreheads and flashing on the face of the drift to light up the white streak of the vein, is the only illumination. For most of the last eight hours they have been busy boring a round of holes into the face, the terrific clatter of the drill ceasing only when they stopped at the completion of a hole or when tired muscles felt the need of a rest from the jarring vibration.

The twenty holes are now completed, each entering about six feet into the face. The centre series is aimed at a common point to form a rough cone shape. This section will be shot out first by trimming the safety fuse, thus allowing the remaining rock to give sideways and leave an even face.

The miners carry the explosives in canvas bags from the underground magazine, where enough is stored for a twenty-four hour supply. About five sticks of dynamite go into each hole and once loaded the men cut the fuses to different lengths to fire the charges in rotation from the inside cone to the walls.

It is now the end of the shift and as similar blasts are fired in other parts of the mine the dull rumble of the explosions is accompanied by rushes of air as the unspent force of the blast whirls along the maze of passages that make up the mine. The two miners have ample time to arrive at a safe spot and here they wait for the explosion of their own charge. It comes suddenly, a series of shattering detonations whipping up the dust as each gust of air rushes past.

Temporarily deafened, the two miners walk off toward the shaft, the beam of their lights throwing circles of light on the floor of the cross-cut and behind them the roar of compressed air clearing the drift they have just left, a drift now six feet longer as a result of the blast.



Dynamite consignment, transported some 3,000 miles by rail and water to Great Bear Lake, being transferred below ground in the Sub-Arctic. It will contribute to the production of pitchblende (radium ore) and silver at the Eldorado mine.



Whether for a wedding gown or simple garment, the fabric required by women on the Island of Oshima, seventy-seven miles south of Tokyo, is woven in the home, and delicate patterns indicate whether the wearer is a maiden or married.

OSHIMA RETAINS NATURAL CHARMS

by CAMELLIA JAPONICA

(Photos by Pix)

ATTRactions of Oshima are now known to the five million inhabitants of Tokyo in much the same manner as the charms of Bermuda are familiar to some seven millions resident in New York, though the former is only seventy-seven miles south of the Japanese capital, and the latter is 666 miles from the American metropolis. Both are beautiful playgrounds in which the burdens of business and cares of commerce may be lightened. Each has a delicate floral emblem that enhances the loveliness of a bride or decorative atmosphere of her home, the camellia and the lily being cultivated respectively in the Oriental and Occidental islands.

Oshima, however, takes particular pride in her smoking volcano, Mihara-yama (2,461 feet), into which despondents have been prone to cast themselves in the hope that their gods will be propitiated and a happier existence secured in another world. Spring blossoms render this and the other six smaller islands of a group, known as Izu-no-shichi-to, most beautiful during that season of the year, but the autumn colouring likewise arouses enthusiasm among the artistically inclined. Snow, if it should appear, lies thinly upon the land, and is quickly dispersed, for Oshima is never cold.

By reason of its proximity to the mainland of Japan, the creation here of an international resort has been considered, but the natural charm and native industries are as yet unaffected by a heavy flow of tourist traffic, from which a large revenue may some day be derived. Scarlet camellia blooms delight the eye throughout this island, some thirty-six square miles in area, but the seeds of this evergreen shrub also provide a sweet-scented oil to which is attributed much of the gloss and glory of the women's long hair. When dry, the leaves are often mixed with tea by reason of their pleasant flavour.

Surmounted by a column of sulphuric smoke, rising from the very bowels of the earth, and crowned with a ring of clouds that enhance the spectacle to which many sightseers are drawn, Mihara-yama is the most popular volcano in the Far East. This is largely due to its accessibility from centres of population. Famous Fuji-yama is approximately the same distance from Tokyo, but is 12,395 feet high and quiescent.

The gaping cavity of Oshima's majestic mountain is almost a mile in circumference, and its estimated depth is in excess of two thousand feet. Sonorous rumblings rise through the swirling vapours, indications of minor eruptions occurring constantly within the crater. These constitute a safety valve for the volcano, as the pent-up energy might otherwise blow the entire island from off the surface of the sea.

Mihara-yama has never killed any of her admirers, according to existing records, but many men and women have cast themselves into the awful depths, this form of suicide relieving relations of the many inconveniences involved by other methods. Such actions are discouraged, however, and a fence has been erected in the most accessible locality. Furthermore, it is now possible to purchase a talisman in the form of an earthenware bowl that may be thrown into the pit. Salvation may be secured by attaching to this little dish the sins for which atonement is desired, and the metaphorical burden is lifted from many shoulders by this metamorphical method.

Daughters of Oshima are hard workers, preserving many of their ancient customs and reserving to themselves the transportation of burdens, whether these happen to be pails of water or bundles of faggots atop their heads, baskets of camellia seeds from which they compress the oil by manual means, or fish brought in from the sea. Their hair is tied with wide cotton ribbons of various shades and designs, which indicate whether they are maidens or married, while aprons are generally preferred to the wide sash favored by Japanese women on the mainland. The cotton fabric, known as "kasuri", is generally woven in the home, black and white patterns being most popular.

Jet-black hair, dark kimonos, raven-hued eyes in which burns the fire of happy enthusiasm, and a ruddy complexion that betokens health and good temper create a romantic atmosphere around the women of Oshima. Their songs and dances, talk and smiles provide the visitor with entertainment that contributes much to the high reputation being established by this island as a tourist resort at all seasons of the year.



Every day, at the hour of lowest tide, the Japanese girls descend to the sea shore and fill their pails with water. As there is a lack of sweet water on Izu-no-shichi-to, the seven (shichi) islands (to) of Izu, that from the ocean must be filtered for the inhabitants. These people also engage in dairy-farming and fishing.





Camellia seeds produce a sweet-scented oil that is popular with women in Japan, producing a fine gloss to their long black hair. These are brought in from the fields and crushed by hand, the container illustrated below being a hollow tree-trunk. Camellia blossoms present a beautiful picture in the spring.



ARCTIC VALEDICTORY

by REV. H. R. ROKEBY-THOMAS

THE winter of 1852-53 saw *H. M. S. Enterprise* wintering at Cambridge Bay, on the south coast of Victoria Island, which proved to be the farthest east that Admiral Collinson sailed that vessel on his arctic voyage of 1850-55.

It is therefore not unfitting that eighty-two years later Cambridge Bay should be the scene of valedictory for Captain Roald Amundsen's ship *Maud*.

One of the greatest of arctic explorers Amundsen was the first man to take a ship through the Northwest Passage, the second to make the Northeast Passage and the first to lead an expedition to the South Pole.

In recording Amundsen's long list of Polar triumphs it is interesting to note somewhat of an anomaly that he is best known by the more spectacular and less intrinsically valuable, from a scientific point of view, of his journeys. The voyage through the Northwest Passage in the forty-seven-ton *Gjoa* (now resting in Golden Gate Park, San Francisco) and the journey to the South Pole have almost eclipsed the voyage of the *Maud* through the Northeast Passage and the extensive scientific investigations and observations carried out there.

It was in 1918 that Amundsen with the *Maud* sailed into the Siberian coastal region and after three winters emerged, the second man to take a ship through the Northeast Passage. Later the years 1922-25 saw Amundsen and the *Maud* again in the same region, with a scientific expedition drifting in the arctic ice. To those two voyages is due a large proportion of the scientific data which has been accumulated regarding the ice-bound seas north of Siberia.

Amundsen, a graduate of the University of Oslo, commenced his life as an explorer with the Belgian Antarctic Expedition led by Commandant de Gerlache de Gomery.

His voyage through the Northwest Passage in the *Gjoa* was made in the years 1903-6; his expedition to the South Pole following in 1911-12. Amundsen reached the South Pole on December 16th, 1911. Captain Scott travelling another route reached there on January 18th, 1912.

The years 1918-1925 witnessed the voyages of the *Maud* in arctic seas under Amundsen's command; and on Amundsen turning towards aircraft as a medium of arctic exploration to make as joint leader with Ellsworth and Nobile the first flight across the north polar basin, the *Maud* was sold to the Hudson's Bay Company for service in the western Arctic being renamed the *Baymaud*.

Now no longer in service, the ship that weathered so much ice and cold, whose keel pioneered over great uncharted seas, lies canted on a shelf of rock in a corner of Cambridge Bay. The mast and spars are gone, fittings and everything portable of value removed and there remains just the hull with the massive timbers, built in the finest way by masters of their craft who put the very best of work into the vessel that was bent on such high adventure.

Shaped like a great half-egg, to ride up under ice pressure, the *Maud* is pointed at both ends, and in the stern deck are wells through which both propeller and rudder could be hauled up for repair if damaged by ice.

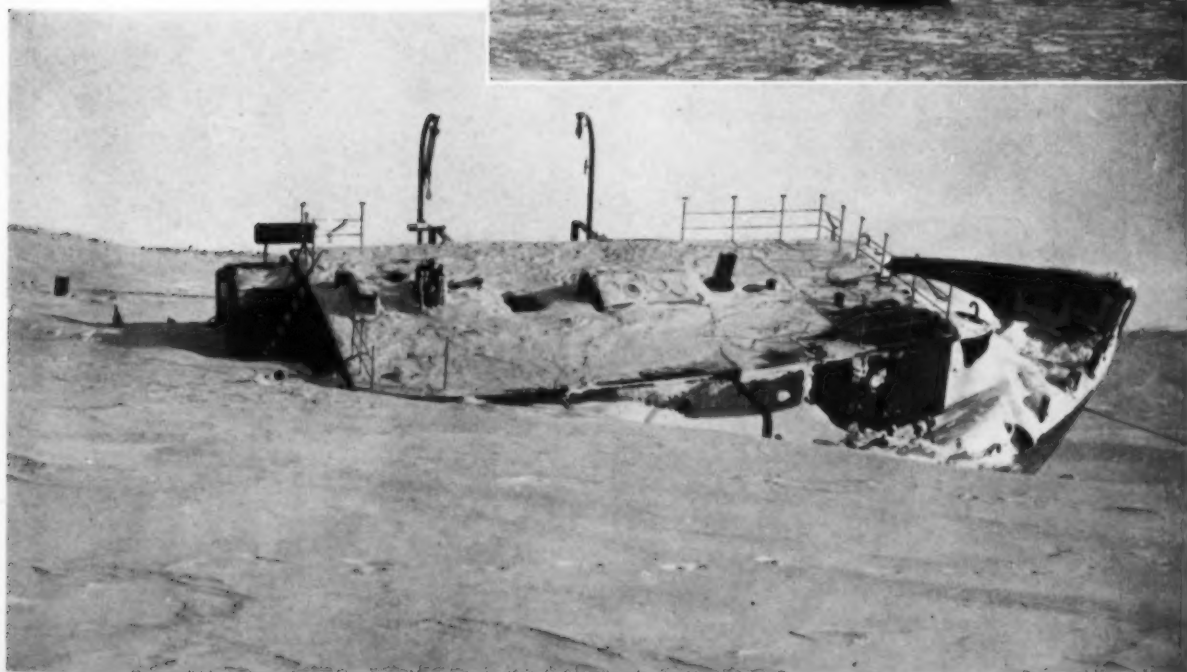
The auxilliary schooner "Fort James" visiting Cambridge Bay in 1935, took out Amundsen's wheel from the *Maud* it being the intention of the Hudson's Bay Company to present that relic of a great explorer and his ship to the Government of Norway, the country of his birth.

The *Maud* represents a type of ship that has outlived a great use; for future arctic exploration by ship will probably devolve on high-powered icebreakers such as the Russian *Krassin*. Yet though the *Maud* may be obsolete for service she leaves behind a record heroic and memorable; going down in history as a ship with great voyages written in her log; and moreover a ship on which a great commander trod the deck.

The heroic attempt of Amundsen to rescue the crew of the ill-fated *Italia*; and in which he lost his life; ranks as by no means the least of his gallant adventures. Like Captain Scott he was a great gentleman.



Captain Amundsen's historic ship
Maud, built in the finest way by
masters of their craft, finds her
final resting place in Cambridge
Bay, Northwest Territories.



Whose first best passion is his Country's Love



John Nelson



J.W. Goddard



Bonaventur Viger



Aux
Beaux
Arts



Aux
Favours
de la
Victoire



J. Marchessault



L'EXILE

EXILE COTTAGE



R. Deschênes



H. A. Gosselin M.D.



R. L. M. Bouchette



L. H. Nappin

LES EXILES CANADIENS
THE CANADIAN EXILES



THE CANADIAN EXILES, 1837-1937

by B. E. KRUSE

THIS very old group picture of the "Canadian Exiles" published in Bermuda about one hundred years ago, will doubtless prove of unusual interest to students of Canadiana, especially as this year will be the centenary of the "Rebellion of '37," and a celebration is being considered as a tribute to the efforts of these leaders who helped to gain responsible government in Canada.

The names still quite legible, recorded on the picture are:—

Wolfred Nelson	R. Des Rivières
T. H. Goddu	H. A. Gauvin, M.D.
Bonaventure Viger	L. H. Masson
S. Marchesseault	R. S. M. Bouchette

These eight young "Patriots" or, as they were called in those days, "Rebels," were as a punishment for their rebellion against the government of Canada, ordered to be transported to Bermuda as prisoners of war, "there to be subject to such restraints, on the said Island, as may be needful to prevent their return."

We cannot help wondering if, had the authorities known the delightfully soothing and balmy effects of the climate of Bermuda, they would have considered a sojourn there in the light of punishment. However, to these remote and romantic islands, the eight young exiles were despatched.

On July 2, 1838, H.M.S. Vestal having just arrived in the harbour of Quebec from the West Indies by way of Halifax, was ordered to be immediately prepared, and two days later she again set sail for Bermuda carrying the Canadian political prisoners.

The journey took three weeks and the arrival of the "Vestal" in the port of Hamilton, on July 24th, 1838, seems to have made quite a stir in the unruffled atmosphere of Bermuda, for we read that Sir S. R. Chapman, who was Governor of Bermuda at that time, ordered a specially convened meeting of his Council, for the purpose of deciding whether the prisoners should be permitted to land. The Governor seems to have been in the embarrassing position of having uninvited guests on his hands. He had no power to receive

them, yet he could hardly send them back. An extraordinary situation!

At length they were received by the government as prisoners and limited to a certain portion of the island for exercise, but, as the Royal Gazette of Hamilton of that date naively comments, "without the slightest provision being made for their maintenance." Nobody seems to have thought of that.

However, being resourceful young men, they immediately looked about and rented a small cottage. This cottage, shown in the centre of the picture, is situated under the shadow of the English Cathedral on the brow of a hill, overlooking the city of Hamilton. Built of coral it was for many years known as "Exile Cottage."

Life in Exile Cottage during the long summer days of 1838 seems to have been lived not without some interest, for we read that three of the exiles were Doctors of Medicine, Dr. Wolfred Nelson, Dr. Masson and Dr. Gauvin, who obtained permission to practise their profession, and, it is said, were very kind to the poor.

Others were fine musicians. They played the flute, the harp and the violin so that passers-by from among the music-loving population of Bermuda were attracted by their playing to the open windows of Exile Cottage. One can well imagine the sweetness of the Canadian folksongs with their note of sadness and longing wafted in the breezes of a soft Bermudian evening.

So one long summer day passed into another until at last came one which brought them news of their freedom.

History records how the ordinance of the Canadian Government which banished them as prisoners was disallowed in the English courts, and word came to them through Governor Chapman of their release from parole on October 30, 1838.

In a book called "Les Patriotes de 1837-38," written by the late Mr. L. O. David, we find an account of how the impatient prisoners received the news.

"Lorsque cette nouvelle nous arriva dit l'un des exilés, nous n'étions pas tous au cottage. Les uns étaient à la chasse,

les autres à la campagne. Aussitôt qu'un de nous arrivait, il était attendu sur le seuil de la porte et on lui criait le plus haut possible. Tu ne sais pas la grande nouvelle. Et lui de répondre: Ma foi, non! Ne pouvant retenir le secret plus longtemps nous criions ensemble: Nous sommes libres."

Free! but free to go where and how?

In those days, it was not so easy to leave Bermuda as it is to-day. One could not step into the ticket-office and buy one's transportation on a palatial liner. Boats to and from Bermuda came and went with no regard to time-tables, principally small provision boats. Moreover amongst the whole party of exile, there was very little money.

Fortune favoured them, however. By good chance there happened to be in port a schooner named the "Persevere" whose captain, after a great deal of persuasion and bargaining, agreed to take them to New York or Boston.

After a very stormy and dangerous voyage, he landed them at Fort Monroe on November 9, 1838, where the people of the town treated them kindly. Here they separated and went to different parts of

the United States, there to await the day when they might return to Canada.

The subsequent careers of these returned wanderers make interesting records. That of Dr. Wolfred Nelson is well known. After returning to Canada he became Mayor of the City of Montreal serving two terms as its chief magistrate. He is buried in Sorel.

Dr. L. H. Masson after his exile established himself at Fort Covington but later returned to Canada where he practised medicine for many years. He was elected member of Parliament for the County of Soulages and died at a very advanced age.

Bonaventure Viger married and settled down into private life in Canada. He founded a large family and was a much respected citizen.

Major Goddu lived to be 90 years old and often recounted with much spirit and animation the events of his long life.

The subjects of this sketch have all long since passed away. The social and political upheavals of their times and the hectic story of their lives are now as a tale that is told but their records live on in the pages of Canadian history.

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EDITOR'S NOTE BOOK

The cover subject and frontispiece are by
Mr. C. M. Johnston, A.R.P.S., Ottawa.

Robert J. C. Stead, author of the article on the Mountain Play-Grounds of Canada, was born in Ontario but spent most of his early life in Manitoba and Alberta. From newspaper work he graduated into the publicity field, first with the Canadian Pacific Railway and afterwards with the Department of Immigration and Colonization at Ottawa. He is now engaged in similar work for the recently organized Department of Mines and Resources. Mr. Stead is widely known as an author of books written against the Canadian background, and is in much demand as a public speaker.

Lloyd Roberts is a Bluenose by birth, heredity and inclination. Born in Fredericton, he spent the first nine years about the campus and school of King's College, Windsor, the second nine back on the St. John, and ever since, except for a few brief visit "home," has been remembering back to the Land of His Fathers from New York, Ottawa and all points west. For at least thirty-five years he has been wielding pen and typewriter, turning out everything from novels to news, from poetry to political articles, from drama and essays to radio broadcasts. He plays everything but musical instruments, knows his wilderness, is a friend of Grey Owl, is a member of the Parliamentary Press Gallery and resides on the Ottawa beyond the city limits.

Mr. G. M. Ross who contributes the article on "Flying Club Training in Canada," started flying with the Royal Flying Corps in Canada in 1917. After completing training, was posted as an instructor with 80 Squadron, Camp Borden, until the close of the War. Resumed flying in 1929 with the Moose Jaw Flying Club; was president of that club the following year. In November 1930 accepted the present post of Executive Secretary of the Canadian Flying Clubs Association, the headquarters of which organization have been Ottawa since February, 1931.

Miss Bertha E. Kruse has had a long career as a teacher in Montreal and as a librarian in Macdonald College library at Ste-Anne-de-Bellevue, Que.

Her collection of old Canadian books and of unpublished letters and reminiscences has been a hobby, from which source she has drawn her article "The Canadian Exiles" which appears in this month's issue.

III



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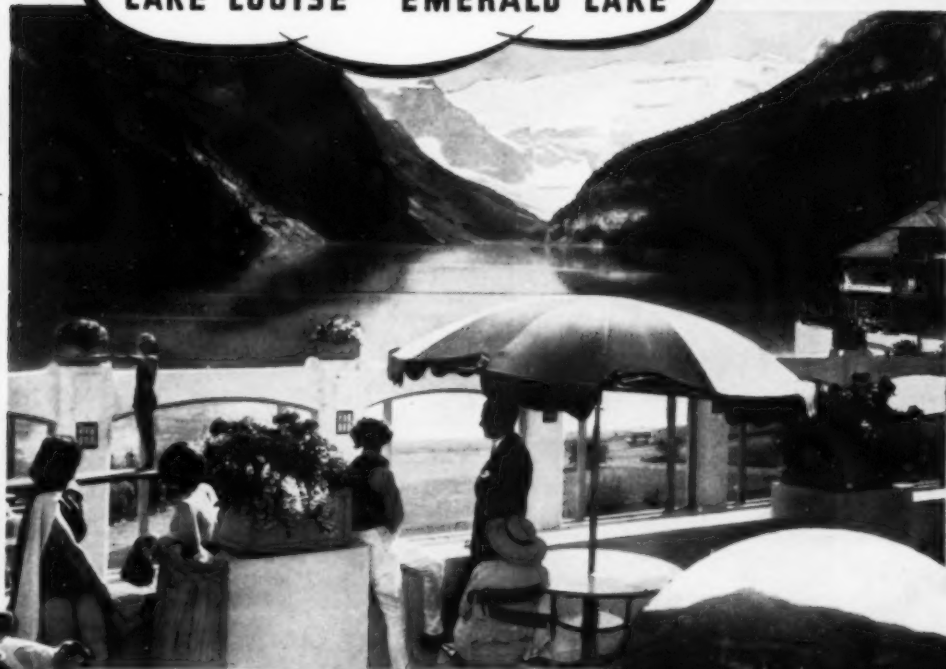
The Coronation issue of the Canadian Geographical Journal will be published in July. The story told by a Canadian journalist, is profusely illustrated with many arresting and beautiful photographs.

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AMONGST THE NEW BOOKS

Who's who in Central and Eastern Europe 1933-1934, edited by STEPHEN TAYLOR (Central European Times Publishing Company, Zurich, 1935). The appearance of the first European Who's Who with its some 10,000 biographies of persons of seventeen different countries is greeted with appreciation by everyone who studies or is concerned with central and eastern European affairs. The countries represented are Albania, Austria, Bulgaria, Czechoslovakia, Danzig, Estonia, Finland, Greece, Hungary, Yugoslavia, Latvia, Lichtenstein, Lithuania, Poland, Rumania, Switzerland and Turkey. One very useful feature is the inclusion of names of outstanding men now living as immigrants in America or elsewhere. The same agency also publishes a *Handbook of Central and Eastern Europe* as an annual guide and reference book to the above states, which furnishes precise geographic, economic, political and social information, contains many good illustrations, tables and maps. Information likely to be useful to tourists is emphasized.

Which Canadian city will be the first to establish a Planetarium? Or what eminent citizen will perpetuate his name and bestow pleasure and instruction on thousands by an endowment like Adler's in Chicago or Hayden's in New York? This is the thought which springs to one's mind on reading the *Hayden Planetarium Bulletin*, issued each month by the American Museum of Natural History in New York. This most attractive journal is a revelation of the immense benefit a planetarium confers on the people. Every issue contains charts

and descriptions of the evening sky—information so clearly presented that it enables the beginner to explore the heavens without getting lost. In addition to reviews of current books and articles of special interest by authorities in the astronomical field, the Bulletin contains numerous illustrations of the heavenly phenomena. The subscription price is \$1.20.

It is pleasant to find the son of Sir Ernest Shackleton already making a name for himself as an explorer. In *Arctic Journeys, the story of the Oxford University Ellesmere Land Expedition, 1934-1935*, Edward Shackleton gives a vivid description of the latest expedition sponsored by the Oxford Exploration Club. The Club's president, Lord Tweedsmuir, contributes a delightful preface. The expedition, organized by Shackleton in 1934, was led by Dr. Noel Humphreys, and Sergeant Stallworthy of the R.C.M.P. was guide, philosopher and friend to the four young explorers. Though compelled to spend the winter at Etah in North Greenland owing to the jam of flow ice in Smith Sound, in the spring of 1935 three parties were formed, proceeding to Ellesmere Land, Grinnell Land, and Grant Land. One notable discovery was a new range of mountains ten thousand feet high within sight of the Polar Sea. Along with the valuable scientific results, we have in this book an intensely interesting account of life to-day within the Arctic Circle. There are forth-five illustrations, five maps and diagrams. The book was published by HODDER and STOUGHTON in 1936 and costs 21 shillings.



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NEWFOUNDLAND

The Amerindians: from Acuera to Sitting Bull: from Donnacona to Big Bear (New York: Frederick A. Stokes Company, 1937, \$2.50). DONALD M. MCNICHOL has here set forth in a book of readable length the story of the American Indians and their centuries of struggle against the usurpation of their lands by the white man. The author for forty years mingled with the Indians of the United States and Canada and has faithfully studied their history and character. He was in Dakota five years after the death of Sitting Bull and learned from many old Indians and white men first-hand stories of actual events. He has also consulted hundreds of English and French diaries and other early records.

Though the larger part is devoted to the struggle as it was fought out in the United States, there are well-balanced chapters on Canada's treatment of her Indian population, including an interesting discussion of Riel's career and the grievances of the Manitoba Indians. Dealing chronologically and in detail with the conquests by various colonists, Portuguese, Spanish, Dutch, English and French, the author attempts to give an impartial account from both the Indian's and white man's point of view. There emerges a sympathetic picture of what the American Indian was and what he represented to the settler, morally, socially and economically.

The many boys and girls who read the Canadian Geographical Journal will enjoy a recent book called *Lawrence*, by EDWARD ROBINSON (London, Oxford University Press, 1935, 3/6). It has all the essential facts of the wonderful life of Lawrence of Arabia and is finely illustrated.

Another Canadian book for their delight is *The Big Canoe*, by LURLINE BOWLES MAYOL (New York: Appleton-Century, \$2.00). It contains authentic stories of the Haida Indians on the Queen Charlotte Islands. They have their royal princesses and proud young chiefs, who undergo a strict training to fit them for their important positions in the tribe. The book is charmingly illustrated by LANGDON KIHN.

Buchan's Days: a Modern Guide to Weather Wisdom, by E. L. HAWKE, (Toronto: MacMillans in Canada, 1936, \$1.50). Most Canadians will jump to the conclusion that here we have another instance of the versatility of our Governor General. But they would be mistaken. John Buchan in some of his tales may be, and often is, a "purveyor of shivers," but not in a meteorological sense. That distinction must be accorded his fellow countryman, Alexander Buchan, a famous meteorologist, whose solid achievements in his chosen profession were well nigh forgotten until a journalist a few years ago unearthed his treatise on "annually recurring inter-

ruptions in the seasonal rise and fall of mean temperatures." Now, thanks to the Coronation and the national discussion of a suitable date, Buchan's name is a household word in Britain. Nine times a year do his famous cold and warm "periods" come round, and are the subject of talks and articles, on the radio and in the newspapers.

Who was this Buchan? What did he do to achieve posthumous fame such as can rarely have fallen to the lot of any scientist? Was it wise to fix the Coronation for May 12, one of Buchan's "cold days"? These questions and many others are answered in this very delightful book by the Secretary of the Royal Meteorological Society. No brief review could do justice to the charm of style and sympathetic treatment which marks Mr. Hawke's story of Alexander Buchan's life and his achievements in meteorology. His chapter on weather lore is a pure delight with its apt quotations from the poets. These indeed run all through the book, even in the more technical discussion of the nine periods, the doctrine as it stands to-day and various new and old meteorological theories.

Those who have no very good opinion of English weather and who, like Julius Caesar, write rude things about it in their diary should study part 2 of this little book. In "Round the Year" Mr. Hawke describes the general weather characteristics of each month in the British Isles and recalls its outstanding pranks and foibles in times ancient and modern. His epilogue quotes a gem of Scottish philosophy: "Well, do ye ken sir, that I never saw in a' my born days what I could wi' a safe conscience hae ca'd dad weather . . . Weather, sir, aiblins no to speak very scientially i' the way o' meteorological observation—but rather in a poetical, that is a religious spirit—may be defined, I jalouse (suspect) 'the expression of the fluctuations and modifications o' feelin' in the heart o' the heevens made audible and visible and tangible on their face and bosom'. That's weather."

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Polish Countrysides, by LOUISE A. BOYD, (New York: 1936, \$4.00), is Special Publication No. 20 of the American Geographical Society, of which Miss Boyd is a very distinguished member. Since she first visited Spitsbergen in 1924, she has led four expeditions to the Arctic regions; the first to Franz Josef Land in 1926, the second when she chartered the motorship *Hobby* and joined in the search for Roald Amundsen; and the last two to the East Greenland coast. In recognition of her valuable work in Arctic exploration, the Society made her an Honorary Member in 1931, and in 1935 published as No. 18 of its special publications her *Fiord Regions of East Greenland*. When in 1934 the International Geographical Congress held its sessions in Warsaw, Miss Boyd attended as one of the delegates of the United States Government, and also as a delegate of the Society. Such a favourable opportunity to study a fascinating country and its people was eagerly seized upon, and through the inspiration and encouragement of Dr. Isaiah Bowman, president of the congress, and the help of distinguished Polish geographers, Miss Boyd was able to visit the most characteristic regions of Poland.

Her objective was to make a photographic record of the rural life of the country, as revealed in representative portraits of peasant types, illustrating methods of farming and other land uses, native industries, architecture and market scenes. Of more than two thousand views taken, four hundred and ninety-five are reproduced in this remarkable book. The cities of Poland are not neglected, but they retain less of the primitive and characteristic aspects of the people's life, and are only touched upon in brief but delightful paragraphs. One gets glimpses of Gdynia, the new port on the Baltic; the provinces of Volhynia and Polesia, of Pinsk, the principal town of the Prypec marshes; of Wilno, the fur centre; and of Grodno, whose most interesting monument is an eleventh century Orthodox Church in Byzantine style. An unusual feature of this relic are the acoustic earthenware vessels with which the walls are honeycombed. When tested, Miss Boyd found there was no echo in any part of the room, and the lowest tones of the voice could be heard from one end of the building to the other.

To Miss Boyd's own delightful story of her journeys, Dr. Stanislaw Gorzuchowski has contributed a scholarly chapter: "Some Aspects of Rural Poland," which, with the maps interspersed through the book, and the splendid photographs, completes what must for long be an authoritative interpretation of Polish life.

A Book of the New Zealand Flora for New Zealand Boys and Girls, with illustrations from original water colour drawings, by MABEL C. COLECLOUGH (Toronto: Longmans, 1936, \$2.00). These beautifully reproduced paintings were all painted from life during Miss Coleclough's five years' residence and travel in New Zealand. In New Zealand there are many plants unknown in any other part of the world, and the flora is considered by botanists one of the most remarkable known. The plates show all except the trees, life-size, each opposite a page of brief descriptive matter, generally including legendary lore and the Maori name. A typical title is "Sophora Tetraptera (The fourwinged Sophora), known everywhere by the Maori name, 'Kowhai.' It is the national flower of New Zealand and belongs to the pea family. . . . All forms are more or less deciduous, the flowers often appearing before the leaves. The golden trees in full bloom in early spring are a beautiful picture.

He ua kowhai—spring showers (When the kowhai is in bloom)."

The Quest for Cathay, by SIR PERCY SYKES, (Toronto: MacMillan Co. of Canada, 1936, \$4.50). When you have read this book you will have a slightly breathless feeling that you have been travelling from olden times up to the day before yesterday. The Quest, indeed, was fulfilled in the 17th Century, when the Jesuit, Benedict Goes, at the end of his great land journey, realized that China was really the long-sought Cathay. But it began long ago when, through early traders between the Far East and Europe, tales of marvellously rich eastern kingdoms gradually stirred the adventurous, the ambitious and heroic monks of missionary zeal, to set forth on the long search for Cathay. What links the story to the present with such vividness is that Sir Percy has himself traversed the routes followed by these valiant merchants, pilgrims and crusaders, and modestly recalls in his own adventures the tremendous difficulties surmounted, the hazards of snowy mountain tops, of arid deserts, of savage tribes and treacherous guides. Not only is the author an eminent explorer and historical geographer in his own right, but he has also a deep knowledge of the work of others in his chosen field, and makes frequent references to their authoritative contributions to the study of this Quest.

The "Seres," as the inhabitants of old Cathay were called, "for from them are brought most excellent stuffs of silk," had not heard of Western Asia or of Europe until about 140 B.C. They too played a gallant part in making the two old civilizations known to each other. Their merchants, explorers and learned monks were followed by conquering warriors and diplomatic missions. They broke through barriers unsurmounted by the Achaemenians and Alexander the Great, and in five centuries, we are told, they created an Empire whose influence covered Central Asia to the Caspian Sea, and their indomitable travellers had reached India both by land and sea.

The first western explorer of whom we have authentic mention is Aristes, whose journey is described by Herodotus. Alexander reaches Central Asia across Persia and Afghanistan, but knows nothing of Cathay itself. Some fifteen centuries later, the heroic monks Carpini and Rubruquis penetrate to the land of the Mongols. Finally, the journeys of Marco Polo, who not only reached Cathay but, travelling far and wide in the service of its enlightened ruler, Kublai Khan, revealed its marvels to Europe. "Then Cathay was lost again, and again sought for and found, yet only within the memory of living man has it been possible completely to open up the regions that were traversed by the mediaeval explorers."

The book abounds in "strange, alluring names of far-off cities and peoples and palaces, the wealth of silks and spices and gold and gems. Tales told out of China were like the seductive spirits, which, Marco Polo thought, called to travellers at night in the Gobi Desert, like the unearthly lights the Chinese monk, Hsuan Tsang, saw there "as numerous as the stars."

Ancient and modern maps, admirably reproduced, help to elucidate the text, and the plates, from the author's photographs or from the gorgeous old illuminated manuscripts, are a joy, especially the coloured frontispiece: "The Departure of the Poles from Venice," with its endearing perspective, where men overtop ordinary buildings and immense swans with scarlet beaks mingle with the shipping. The many quotations from ancient texts are a final delight.

FLORENCE E. FORSEY.

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